To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS

From: Dianna L. Taylor

Bureau Chief of Personnel Management

Subject: Technical Vacancy

Date: May 13, 2016

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement May 16, 2016 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Friday**, **May 27**, **2016**. Applicants will not be accepted after that time and date.

NOTE: A copy of each applicant's ACTIVE Illinois Structural Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact Jennifer Sunderland or Denise Hamilton at 217/782-5594.

CE VI Ratings and Permits Unit Chief

Bureau of Bridges & Structures

Highways Springfield

Attachments 40880

Technical Applications (PM 1080) <u>must be received</u> by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) or emailed to DOT.CO.BPM.EmploymentApplications@illinois.gov by **Friday, May 27, 2016**, 4:30 p.m. Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: A copy of each applicant's ACTIVE Illinois Structural Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.



Position Summary Sheet

An Equal Opportunity Employer

Classification: Civil Engineer VI Salary Range: \$6,945 - \$11,020

Position Title: Ratings and Permits Unit Chief Union Position: X Yes No

Position Number: PW116-23-50-906-30-01 IPR#: 40880

Office/Central Bureau/District/Work Address:

Division of Highways/Bureau of Bridges & Structures -2300 South Dirksen Parkway, Springfield, IL

Description Of Duties:

This position is accountable for managing the activities of the Ratings and Permits Unit to ensure the development of safe load limits for all state-maintained structures and the approval of overload permits for structural adequacy through the AASHTO bridge rating software and other methods as necessary.

Special Qualifications:

The following criteria is required:

Illinois Structural Engineer's license

The following criteria is desired:

- Ten years of experience in the practice of civil engineering of which at least six years should be in the specific
 area of structural engineering, four years of which should include the planning and supervision of significant
 engineering work
- Strong oral and written communication skills
- Decision-making ability to determine structural adequacy and load limits or closure of structures as needed
- Ability to work with others and prioritize work load to accomplish responsibilities

Shift/Remarks:

8:00 am - 4:30 pm / Monday - Friday

ILLINOIS DEPARTMENT OF TRANSPORTATION POSITION DESCRIPTION

DATE: 12-16-2015 **POSITION:** Ratings and Permits Unit Chief

APPROVED BY: Carl Puzey **OFFICE/DIVISION:** Highways/Bridges and Structures

CODE: PW116-23-50-906-30-01 REPORTS TO: Structural Services Section Chief

Position Purpose

This position is accountable for managing the activities of the Ratings and Permits Unit to ensure the development of safe load limits for all State maintained structures and the approval of overload permits for structural adequacy through the AASHTO bridge raring software and by other methods as necessary.

Dimensions

Subordinate Personnel: Direct 2; Indirect 5 Number of Structures: 7,000 to 8,000

Value of Structures: \$5,000,000,000 to \$6,000,000,000

Nature and Scope

This position reports to the Structural Services Section Chief as do the Unit Heads of the Local Bridge Unit, Bridge Management Unit, ridge Investigation and Repair Plans Unit. Reporting to this position are the Bridge Ratings Group Engineer and Bridge Rating Engineer.

This position operates in an environment of management and structural engineering expertise to direct unit personnel in the structural analysis and rating of all newly constructed State structures and the monitoring and, when required, the reevaluation and re-rating of existing structures on the State system. The incumbent directs the review of overload permit requests prior to issuance to ensure structural adequacy. S/he also directs the posting and/or closing of deficient structures.

Problems faced by the incumbent include the necessity to direct the closure or posting of structures. Such actions usually result in significant difficulties and inconvenience to the travelling public and may involve economic losses to communities served. The incumbent is required to explain the reasons for closure in terms understandable to the general public and provide engineering justification to other professionals. S/He must also determine the structural adequacy of aging structures which are unique and experiencing rapid deterioration. The greatest challenge of this position is to manage the evaluation of the structures on the State system and ensure that proper and current load limits are established. S/He ensures that structures susceptible to major structural problems are identified and continually monitored in order to avoid structural failure.

Functions personally performed by the incumbent include managing and directing the personnel in the Unit in the analysis and rating of structures using the AASHTO bridge ratings specifications, The Manual of Bridge Evaluation (MBE), and the AASHTO bridge rating software. The AASHTO software determines load carrying capacities, postings for deficient structures, maintains a structure database for all State structures, and analyzes overload permits requests which exceed the legal limits. The incumbent monitors and develops Departmental procedures and guidelines for bridge loadings and ratings and maintains the Ratings chapter of the Structural Services Manual. Through the MBE, s/he initiates, develops, and monitors the methods utilized to calculate load carrying Manual. Through the MBE, s/he initiates, develops, and monitors the methods utilized to calculate load carrying capacities and directs the closure of structures that are found to be structurally deficient. S/he also monitors, and when called upon, assists in the development of the MBE.

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The incumbent should have a knowledge and understanding of the new Local Resistance and Factor Ratings (LRFR) specifications in the MBE, which are currently being developed by AASHTO and are expected to be the basis for all bridge ratings nationally in the near future. S/he serves as the Department's representative at the AASHTO bridge rating software user's group committee meetings to help shape the development of the software. S/he responds to questions from other states, universities, structural engineers, researchers, and laymen concerning subjects related to this specialized field. The incumbent represents the Department in the structural review of non-state bridges vital to the State's transportation needs. S/he prepares special reports within the scope of his/her responsibility.

The incumbent accomplishes accountabilities through the following staff:

A Bridge Ratings Group Engineer who, with a staff of engineers, is responsible for performing the structural analysis and rating of State structures. S/He is responsible for the review and approval of overload permits which exceed the legal limits and the posting of deficient structures.

A bridge Rating Engineer is responsible for determining the structural ratings of structures on the State Highway System based on calculated safe load carrying capacities. S/he is also responsible for recommending approval/disapproval of overload permits by the Department for the operation of vehicles or loads that exceed the legal maximum dimensions and weights, construction overloads, and requests for addition of overlays.

The incumbent has wide latitude in implementing Departmental guidelines and unit procedures. S/he must inform superior as soon as practical of the necessity to close a structure. S/he makes recommendations for promotions, transfer requests, and disciplinary action of subordinate personnel.

The incumbent is in constant contact with the Office of Planning and Programming, the Bureaus of Information Processing, Operations, Construction, the Districts, private trucking firms, and contractors to accomplish the responsibilities assigned to this Unit. S/he is also in frequent contact with AASHTO and the Federal Highway Administration during the performance of the assigned duties.

The effectiveness of this position can be measured by the ability to manage the Unit to effectively rate structures, respond to emergency structure situations, and the ability to protect the State's large investment in structures.

Principal Accountabilities

- 1. Directs the Department's structure ratings, structure analysis and permit load approval and investigations.
- 2. Investigates and approves closing or placing of load limits on State structures.
- 3. Monitors and develops Departmental guidelines and procedures for bridge loadings and ratings, and maintains the Ratings chapter of the Structural Services Manual using the AASHTO MBE and LRFR specifications.
- 4. Keeps abreast of technical advancements in structural engineering, structural computer systems, and the AASHTO bridge ratings software.
- 5. Motivates, evaluates and develops subordinates to maintain a high level of employee morale and work performance.
- 6. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
- 7. Performs other duties as required or assigned.